The second partial derivative of specific volume on pressure at the critical point of phase transition liquid-gas one-component substances

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Abstract
The second partial derivative of the specific volume on pressure with the equation of state of fluctuation the theory of the critical point and equation of state of Van der Waals forces were analytical investigated. It is shown that this derivative at the critical point of phase transition liquid-gas has no defined value. It is shown that the second partial derivative of the specific volume on pressure is not a continuous function and therefore is not a function of state.